IN THE CLAIMS

This listing supersedes and replaces all prior claim listings. Please cancel claim 3 without prejudice and amend claims 1, 4 and 6 as follows:

1. (Currently Amended) A reproducing apparatus in which a first reproduction signal and a second reproduction signal are simultaneously obtained by a plurality of reading means from a disc-shaped recording medium on which data of a high-transfer rate and data of a low-transfer rate have been recorded, comprising:

signal layout converting means for time division multiplexing said first reproduction signal and said second reproduction signal and arranging them;

sync adjustment information forming means for forming sync adjustment information, which is optimum to each reproduction signal from said first reproduction signal and said second reproduction signal, based upon the transfer rate of [[the]] each reproduction signal;

waveform equalizing means for executing a waveform equalizing process to an output of said signal layout converting means;

switching means for switching characteristics of said waveform equalizing means in accordance with said sync adjustment information; and

a PLL for generating a clock signal according to said sync adjustment information,

wherein said PLL comprises a voltage controlled oscillator, a phase comparator for phase-comparing an output of said voltage controlled oscillator or its frequency-divided output with an edge detection pulse of the reproduction signal, and a charge pump filter to which an output of said phase comparator is supplied and which forms a control voltage for said voltage

controlled oscillator, and an output frequency of said voltage controlled oscillator and a pulse width of said edge detection pulse are controlled on the basis of switching information of heads and linear velocity information as said sync adjustment information.

2. (Original) A reproducing apparatus according to claim 1, wherein the signals are reproduced so that the sum of the transfer rate of said first reproduction signal and the transfer rate of said second reproduction signal is set to be almost constant.

3. (Canceled)

4. (Currently Amended) A reproducing apparatus according to claim [[3]] 1, further comprising phase lock detecting means for detecting whether or not the apparatus is in a phase locked state on the basis of the output of said phase comparator, and wherein said voltage controlled oscillator is controlled on the basis of a detection result of said phase lock detecting means.

5. (Original) A reproducing apparatus according to claim 1, wherein said disc-shaped recording medium has a duplex recording structure and said reading means are provided for both sides of the disc.

6. (Currently Amended) A reproducing method whereby a first reproduction signal and a second reproduction signal are simultaneously obtained by a plurality of reading means from a

disc-shaped recording medium on which data of a high-transfer rate and data of a low-transfer rate have been recorded, comprising:

a signal layout converting step of multiplexing said first reproduction signal and said second reproduction signal and arranging them;

a sync adjustment information forming step of forming sync adjustment information, which is optimum to each reproduction signal from said first reproduction signal and said second reproduction signal, based upon the transfer rate of [[the]] each reproduction signal;

a waveform equalizing step of executing a waveform equalizing process to an output of said signal layout converting step;

a step of switching characteristics of said waveform equalizing step in accordance with said sync adjustment information, inputting an output signal of said waveform equalizing step to a PLL, and generating a clock signal according to said sync adjustment information,

wherein said PLL comprises a voltage controlled oscillator, a phase comparator for phase-comparing an output of said voltage controlled oscillator or its frequency-divided output with an edge detection pulse of the reproduction signal, and a charge pump filter to which an output of said phase comparator is supplied and which forms a control voltage for said voltage controlled oscillator, and an output frequency of said voltage controlled oscillator and a pulse width of said edge detection pulse are controlled on the basis of switching information of heads and linear velocity information as said sync adjustment information.